FREEPORT-McMoRan
COPPER & GOLD

Freeport-McMoRan Sierrita Inc.
6200 W. Duval Mine Rd.
PO Box 527
Green Valley, Arizona 85622-0527

September 27, 2010

Certified Mail: 7009 3410 0002 3634 3944
Return Receipt Requested

Mr. Mukonde Chama
Air Permits Supervisor
Pima County Department of Environmental Quality
33 North Stone Avenue, Suite 730
Tucson, Arizona 85701

RE: **Notice of Facility Change Allowed Without Permit Revision:**
Replacement of a 300,000 BTU/hr Natural Gas Fired
Hot Water Heater in the Copper Sulfate Plant;
Freeport-McMoRan Sierrita Inc., Permit #42862 (Pima County #6067)

Dear Mr. Chama:

In accordance with P.C.C. Section 17.12.230.D, this letter serves as written notification of a facility change allowed without permit revision. Freeport-McMoRan Sierrita Inc. (Sierrita) proposes to replace an existing 300,000 BTU/hr natural-gas fired hot water heater with a newer, more efficient 399,000 BTU/hr natural-gas fired hot water heater at the Copper Sulfate Plant.

Date of Planned Change

The replacement of the natural gas-fired hot water heater is scheduled to occur no sooner than October 4, 2010.

Description of Planned Change

Sierrita produces copper sulfate pentahydrate crystals by chilling electrolyte solution in stages in the Copper Sulfate Plant. As the electrolyte moves through pipelines it begins to crystallize. To prevent complete crystallization and thus maintain flow, hot water is sprayed on the pipelines and pumps. Furthermore, Sierrita operators regularly dissolve crystals that accumulate throughout the copper sulfate process as well as non-conforming product for recycle with heated water. The hot water is provided by a small 300,000 BTU/hr natural gas fired hot water heater. In order to make this maintenance activity easier, to reduce operator hours, and to reduce water use, Sierrita proposes to replace the existing older, inefficient 300,000 BTU/hr natural gas-fired hot water heater with a newer, more-efficient 399,000 BTU/hr natural gas-fired hot water heater to provide a more consistent supply of hot water as needed. Installation of this new hot water heater will not affect copper sulfate plant capacity or throughput, which depends upon the amount of electrolyte processed. The addition of the water heater simply allow for this maintenance task to be performed more quickly and efficiently while using less water.

Change in Emissions of Regulated Air Pollutants

The potential to emit of the new 399,000 BTU/hr hot water heater was calculated using emissions factors from AP-42 1.4.1 – 1.4.2 and is presented below:

PM 0.399 MMbtu/hr x [(7.6#/10^6scf) / (1020 MMBtu/10^6 scf)] x 8760 hr/year x ton/2000#
= 0.013 TPY

PM10 0.399 MMbtu/hr x [(7.6#/10^6scf) / (1020 MMBtu/10^6 scf)] x 8760 hr/year x ton/2000#
= 0.013 TPY

SO2 0.399 MMbtu/hr x [(0.6#/10^6scf) / (1020 MMBtu/10^6 scf)] x 8760 hr/year x ton/2000#
= 0.001 TPY

CO 0.399 MMbtu/hr x [(84#/10^6scf) / (1020 MMBtu/10^6 scf)] x 8760 hr/year x ton/2000#
= 0.144 TPY

NOx 0.399 MMbtu/hr x [(100#/10^6scf) / (1020 MMBtu/10^6 scf)] x 8760 hr/year x ton/2000#
= 0.171 TPY

VOC 0.399 MMbtu/hr x [(5.5#/10^6scf) / (1020 MMBtu/10^6 scf)] x 8760 hr/year x ton/2000#
= 0.009 TPY

As described above, the proposed 399,000 BTU/hour hot water heater will replace an existing 300,000 BTU/hour hot water heater. Sierrita does not have actual usage data for the existing hot water heater and can therefore not subtract actual emissions in order to determine the potential net emissions increase. However, as demonstrated above, the potential emissions from the replacement heater without including the subtraction of actual emissions are substantially below significance thresholds.

Permit Terms or Conditions No Longer Applicable as a Result of the Change

Not Applicable

Specific Requirements for Changes without a Permit Revision

The proposed change meets all five criteria listed under Section 17.12.230(A) for changes allowed without a permit revision:

- The change is not a modification under any provision of Title I of the Act or under A.R.S. 49-401.01(24);
- The change does not exceed the emissions allowable under the permit whether expressed therein as a rate of emissions or in terms of total emissions;
- The change does not violate any applicable requirements or trigger any additional applicable requirements;
- The change satisfies all requirements for a minor permit revision under Section 17.12.255; and
- The change does not contravene federally enforceable permit terms and conditions that are monitoring (including test methods), recordkeeping, reporting, or compliance certification requirements.

If you have any questions or require more information, please contact me at (520) 393-2603.

Sincerely,

Kali Hoyack
Environmental Engineer II

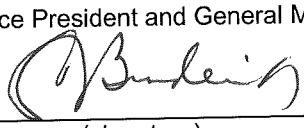
20100927-001

cc: US EPA Region IX, Air Division
Certified Mail: 7009 3410 0002 3634 3951

CERTIFICATION OF TRUTH, ACCURACY AND COMPLETENESS

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in this Notice of Facility Change Allowed Without Permit Revision are true, accurate, and complete.

John Broderick, Vice President and General Manager



(signature)

Date: 09/27/10